CLAIMS:

1. A device for mixing the outputs of two sensors including:

a first input for receiving a signal from at least one first sensor;

a second input for receiving a signal from at least one second sensor;

a low pass filter for passing signal components of the first input signal below a first frequency;

a high pass filter for passing signal components of the second input signal above a second frequency; and

a mixing circuit for combining the signals passed by the low pass filter and the high pass filter to form a combined output signal.

2. A device according to claim 1 wherein the first frequency defines a corner frequency of the low pass filter and the second frequency defines a corner frequency of the high pass filter.

3. A device according to claim 2 wherein there exists a crossover between the input signals from the first and second sensors at a crossover frequency determined by the corner frequencies of the two filters.

4. A device according to claim 3 wherein the first and second corner frequencies are selected to provide a substantially uniform overall response in the combined output signal.

5. A device according to any one of the preceding claims, further including a control means for varying the first frequency.

6. A device according to claim 5 wherein the variable first frequency has a minimum value substantially equal to the second frequency.

7. A device according to claim 6 wherein the first frequency has a minimum value within the range of 300 Hz to 900 Hz.

8. A device according to claim 7 wherein the minimum value is about 750Hz.

9. A device according to claim 7 or claim 8 wherein the first frequency is variable between the minimum value and about 10 kHz.

10. A device according to any one of claims 5 to 9 wherein the control means further includes an attenuator for varying a level of the signal passed by the high pass filter from the second input to the mixing circuit.

11. A device according to claim 10 wherein the control means simultaneously varies the first frequency of the low pass filter and varies the level of the signal passed by the high pass filter.

12. A device according to claim 11 wherein a range of frequencies passed by the low pass filter is extended whilst the level of the signal passed by the high pass filter is attenuated, and the range of frequencies passed by the low pass filter is reduced whilst the level of the signal passed by the high pass filter is increased.

13. A device according to any one of the preceding claims wherein the second frequency is within the range of 300 Hz to 900 Hz.

14. A device according to claim 13 wherein the second frequency is about 750Hz.

15. A pre-amplifier incorporating a mixing device according to any one of the preceding claims.

16. A pre-amplifier according to claim 15 wherein an under saddle sensor is connectable to the first input of the mixing device and a second sensor, attached to a body portion of the guitar, is connectable to the second input of the mixing device.

17. A pre-amplifier according to claim 16 wherein the second sensor is attached to the inside of the soundboard of the guitar.

18. An acoustic guitar including an under saddle sensor, a second sensor attached to a body portion of the guitar and a pre-amplifier according to any one of claims 15 to 17, wherein the under saddle sensor in connected to the first input of the mixing device and the second sensor is connected to the second input of the mixing device.

19. An acoustic guitar according to claim 18 wherein the second sensor is attached to the inside of the soundboard of the guitar.

20. An acoustic guitar according to claim 18 or claim 19 wherein a further sensor is attached to another body portion of the guitar and is also connected to the second input of the mixing device.

21. An acoustic guitar according to claim 20 wherein the second sensor is attached to the soundboard of the guitar and the further sensor is attached to the rear panel of the guitar.